RELATIONSHIP OF POSITIVE AND NEGATIVE AFFECT OF PERSONALITY AND INTERNET GAMING DISORDER IN GAMERS

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ABSTRACT

Background: Gaming has become a flourishing industry with every passing day. People are starting to choose gaming as a career these days. The current research aims to explore the gamers' personality traits and their relationship with developing Internet Gaming Disorder. Positive affect is the positive feeling associated and negative affect is the negative feeling associated with personality. Internet Gaming Disorder is the tentative disorder present in section 3 of the Diagnostic and Statistical Manual of Mental Disorders (DSM-V-TR). It is defined as the preoccupation with internet games.

Objectives: To explore the relationship between negative and positive affectivity schedules of personality and internet gaming disorder.

Methods: This research adopted the correlational survey research design to research the relationship between the variables. The research was conducted on 274 participants through survey distribution. Positive and Negative Affect Scale (PANAS) was used to measure positive and negative affect in personalities along with Internet Gaming Disorder Scale (IGDS9-SF).

Results: The research uncovered a significant predictive link between positive and negative affectivity schedules of personality and the susceptibility to Internet Gaming Disorder (IGD). It reveals that individuals with higher positive traits are less likely to develop IGD, while those with elevated negative traits are more vulnerable to the disorder.

Conclusion: This research helped predict areas where individuals of different personalities can excel. It opened doors for organizations and career researchers to introduce it as a way for individuals in which they can pursue gaming as a career. The precautions, trends, and development of Internet Gaming Disorder will be prominent. This research opened more areas to research for researchers along with spreading general awareness of Internet Gaming Disorder with personality.

Keywords: Internet Gaming Disorder, Positive Affectivity Schedule, Negative Affectivity Schedule

1. INTRODUCTION

The gaming industry is experiencing significant growth, with new games and technologies being introduced regularly (Otu, 2020). Investment in the Esports industry is also increasing globally, with gamers earning substantial amounts of money through playing and streaming games, making it a viable career option (Newman & Xue, 2020). As a result, gaming sustainability and eligibility are being examined by researchers (Carras et al., 2020). Several studies have investigated the psychological attributes of gamers, including their personality types (Anthony et al., 2016), the problematic gamers, and the causation of becoming a gamer.

The current research explored the relationship between the development of Internet Gaming Disorder and the personality traits of gamers. The research identified potential personality traits that may increase the risk of developing the disorder, ultimately leading to the development of targeted interventions to prevent and treat it.

Research has previously investigated the relationship between personality traits and problematic gaming behavior. For instance, Anthony et al. (2016) found that Problematic Gaming behavior was more prevalent in people who were low in conscientiousness and strong in neuroticism. Additionally, studies have highlighted the negative

effects of excessive gaming on psychological well-being, including depression, anxiety, and stress (King et al., 2017).

Therefore, the current research's findings provided valuable insights into the potential personality traits that contributed to the development of Internet Gaming Disorder (IGD), which can aid in identifying individuals who may be at higher risk for the disorder. This, in turn, can inform the development of targeted interventions to prevent and treat IGD. Ultimately, the research's results can contribute to raising awareness about the potential negative effects of excessive gaming on psychological well-being and encourage individuals to engage in a variety of activities to promote a healthy lifestyle.

The current lack of research in this area also highlights the need to identify the potential personality traits that may contribute to the development of IGD. Early identification of these traits can inform interventions that target at-risk individuals and prevent the disorder's development.

The research's findings are significant for several reasons. They contribute to the limited research on Internet Gaming and E-sports in Pakistan, providing a more in-depth understanding of the factors that may contribute to the development of IGD. The research's findings raised awareness of the potential risks of problematic gaming and encourage healthy gaming behavior. The population needs to be educated about the negative effects of excessive gaming on psychological well-being and the importance of developing healthy gaming habits. With increased awareness, individuals can make informed decisions regarding their career choices and develop strategies to control their gaming behavior if necessary. By promoting healthy gaming behavior, individuals can enjoy the benefits of gaming while minimizing its negative effects on their psychological well-being.

The research talks about personality variables such as effect, which in English vocabulary, is defined as something that produces a change. However, in psychology, the meaning of affect is a special kind of influence. It refers to an ability that influences your mind and body (Barrett & Bliss-Moreau, 2019). Positive affect is the positive feeling associated with the personality and negative affect is the negative feeling associated with personality (Larsen & Ketelaar, 1991).

The negative and Positive Affect Schedule is a scale that has items to describe positive and negative emotions and feelings. Positive affects reflect to a positive outlook towards life while facing the uneven challenges of life and Negative affect reflects experiencing the world in a negative way (Anthony et al., 2016).

The Diagnostic and Statistical Manual of Mental Disorders (DSM V) includes a provisional diagnosis of Internet Gaming Disorder (IGD), which is characterized by preoccupation with internet games. According to DSM V, individuals with IGD frequently think about internet games and may sacrifice important personal and professional relationships, job opportunities, or careers for the sake of gaming. They often want to spend an increasing amount of time playing internet games and may have made numerous unsuccessful attempts to stop or reduce their gaming behavior.

Excessive online gaming and addiction to gaming have been topics of discussion for possible inclusion in future categorizations of psychopathology. Studies have found that adolescents invest a significant amount of time in gameplay to improve their gaming skills, which can have a considerable impact on their personality, focus, and overall functioning (Lewis & Weirs, 2012).

The negative impact of excessive gaming on an individual's social life and personality highlights the importance of understanding the underlying causes of gaming addiction. The development of gaming addiction can be attributed to various factors, including the individual's psychological and social environment. Factors such as social anxiety, depression, and poor self-esteem may increase the risk of developing gaming addiction (King et al., 2017). Additionally, the availability of gaming platforms and games increases the risk of addiction in susceptible individuals.

Online gaming is not only considered a source of leisure, but it also plays a significant role in fulfilling an individual's enjoyment and self-fulfillment needs. Researchers have found that the level of enjoyment obtained from online gaming is closely related to an individual's personality traits. Specifically, two personality traits, self-forgetfulness, and sensation-seeking, have been identified as being positively associated with online gaming (Fang & Zhao, 2010).

As online gaming becomes more and more popular, it is critical to comprehend the possible harm that excessive gaming may have to a person's psychological health. Internet Gaming Disorder (IGD), which is marked by a person's obsession with online games and a loss of control over their gaming behavior, is one cause for concern (American Psychiatric Association, 2013). According to a recent research, certain personality qualities, like sensation-seeking and self-forgetfulness, are linked to greater enjoyment of online gaming (Fang & Zhao, 2010). Online gaming can be enjoyable and a way to express oneself, but it's crucial to comprehend how personality factors might lead to excessive gaming and IGD.

Excessive online gaming can have negative effects on individuals' psychological well-being, and Internet Gaming Disorder is a growing concern. Understanding the personality traits and emotional regulation difficulties associated with excessive online gaming can inform the development of effective interventions and prevention programs for IGD. Furthermore, raising awareness about the potential negative consequences of excessive gaming on psychological well-being is crucial to promoting healthy gaming behavior.

1.2 Problem Statement

The activity of internet gaming has become a popular and enjoyable pastime for many individuals. However, excessive engagement in this activity can lead to the development of Internet Gaming Disorder (IGD), which can have detrimental effects on an individual's psychological well-being. Previous research has suggested that negative affect schedules within an individual's personality may contribute to the development of IGD (Demirbas, et.al, 2022). The current research explored the co-occurrence of both positive and negative affect schedules with Internet Gaming Disorder and to identify potential personality traits that may predispose individuals to IGD.

To achieve this objective, the research recruited a sample of individuals who reported engaging in internet gaming. Participants completed self-report measures of IGD, positive affect schedules, and negative affect schedules.

The research on Internet Gaming Disorder and its association with personality is needed because IGD is one of the most prevalent and suspected disorders in DSM-V TR. Research will validate the importance of personality patterns on Internet Gaming Disorder and its prevention.

1.3 Research Objectives
- To explore the relationship between negative affect schedule of personality and internet gaming disorder.

- To explore the relationship between positive affect schedule of personality and internet gaming disorder

1.4 Research Questions

- Is there a significant correlation between the negative affect schedule of personality and Internet Gaming Disorder?

- Is there a significant correlation between positive affect schedule of personality and Internet Gaming Disorder?

1.5 Significance of the Research

The rapid growth of the gaming and e-sports industry has raised concerns regarding the potential negative effects of excessive gaming on individuals' psychological functioning and career choices. The increasing availability of mobile phones and laptops has made it easier for individuals to access and play different games. This leads in the increased rate and prevalence of Internet Gaming Disorder (IGD) in the population. Thus, it is imperative to investigate the factors contributing to IGD and their relationship with certain personality traits.

This research identifies the personality traits that may predispose individuals to develop IGD. By understanding these traits, individuals can make informed decisions about their career choices and develop strategies to control their excessive gaming behavior if necessary.

The findings of this research provided valuable insights into the factors that contribute to the development of IGD, which can inform the development of targeted interventions to prevent and treat the disorder. The research shed light on the relationship between IGD and certain personality traits, which can aid in identifying individuals who may be at higher risk for the disorder and the current research results raised awareness about the negative effects of excessive gaming on psychological well-

being and encourage individuals to engage in a variety of activities to promote a healthy lifestyle.

1.6 Operational Definition of Key Terms
1.6.1 Internet Gaming Disorder (IGD)

It is defined as persistent and recurrent use of internet to engage in games, often with other players leading to significant impairment or distress as indicated by preoccupation with internet games, withdrawal symptoms, tolerance, unsuccessful attempts to take part in internet games, loss of interest in previous hobbies and entertainment, continued excessive use of internet games despite of psychosocial problems, deceived family members, therapists or others for the amount of internet games, use of internet games to escape or relieve a negative mood, has lost or jeopardize a significant relationship, job, educational or career opportunity in a 12 month period (DSM-V-TR).

1.6.2 Positive Schedule of Personality

Positive Schedule or affectivity of personality is referred to extraversion, openness to experience, agreeableness, and conscientiousness. Positive affectivity (PA) is the disposition to feel positive affect (Watson, Clark, & Carey, 1988).

1.6.3 Negative Schedule of Personality

Negative Schedule or affectivity of personality is defined as neuroticism and personality traits related to neuroticism. Negative affectivity (NA) is the disposition to feel negative affect (Watson, Clark, & Carey, 1988).

1.7 Definition of Key Terms
1.7.1 Problematic Gaming

Problematic gaming Behavior is defined as the gratification process which can later convert in to compensatory behavior that leads to balancing out negative experiences such as feelings of being misunderstood, conflict with parents, and loneliness (Dieris-Hirche et al., 2020).

1.7.2 Healthy Gaming

Healthy or positive gaming is defined as when people play games as a part of their life including all the other activities. They work, research, and make friends in real life and enjoy their company as much as they enjoy spending time with their online friends (Adair, 2022).

1.7.3 E-Sports

It is defined as the activity of playing games online against other players. This can be done often for money or just to be watched by people using the internet (Streams) on different platforms or for especially organized tournaments (Press, 2020).

2. LITERATURE REVIEW

E-sports is one of the fastest-growing and least-researched industries (Schaffer, 2016). It wasn't accepted in Pakistan initially but now the industry is growing and accepted with every passing day. Being a fast-spreading industry, it is very important to explore and research its impact on the personalities of people. There is a very limited amount of research conducted in the field of E-sports and gaming and this research is important to explore the work done and to contribute in the further research work on gaming industry.

Internet gaming disorder (IGD) has been widely studied among adolescents but has received limited attention among adult populations, particularly in China. This research aimed to estimate the prevalence of probable IGD in a community-dwelling adult population in Macao, China and to examine the associations between IGD and psychological distress and character strengths. A total of 2,008 participants were included in the research. The most commonly reported IGD symptoms were mood modification and continued engagement despite negative consequences. Participants with probable IGD reported higher levels of psychological distress, specifically moderate or above levels of depression and anxiety, compared to non-IGD respondents. Additionally, those with probable IGD reported lower levels of psychological resilience than non-IGD respondents. However, no significant buffering effect of character strengths on the relationship between distress and IGD was found. These findings highlight the potential mental health threat posed by IGD to both adolescents and adults, indicating the importance of including both sexes and different age groups in prevention and intervention efforts. Furthermore, given the significant association between IGD and psychological distress, interventions for IGD should also address psychological distress as a key component of treatment. Future research could investigate the potential benefits of including character strengths in IGD treatment and prevention programs (Wu et.al, 2018).

A research was conducted to investigate the personalities of individuals who engage in video gaming using the five-factor model. The research was conducted through a survey-based approach to explore the genre preferences of gamers. The research found a significant relationship between the genre choices of gamers and their personality traits (Peever et al., 2012).

The association between a gamer's personality and the emergence of Internet Gaming Disorder is examined in the current research. The illness known as Internet Gaming Disorder is characterized by the compulsive and excessive usage of online gaming, which can seriously impair or disturb a person. The personality features that contribute to the emergence of this condition must be identified in order to develop effective interventions. A higher risk of developing Internet Gaming Disorder has been reported by prior research to include personality factors including neuroticism and impulsivity (King et al., 2013). Contrarily, according to some studies, personality qualities including conscientiousness and agreeableness are adversely correlated with the condition (Liau et al., 2015).

It is crucial to understand the relationship between personality traits and Internet Gaming Disorder as it can provide insights into the underlying mechanisms of the disorder. Additionally, identifying the personality traits that increase the risk of developing the disorder can aid in the development of prevention and treatment strategies.

The relationship between the personality traits of gamers and the development of Internet Gaming Disorder is a topic of significant research interest. There was another research that was conducted to explore the psycho-biological dimensions of the PC gamers and their relationship with Internet Gaming Disorder aiming to understand the disorder more. This research can be related with the current research as through Temperament and Character Inventory, Positive and Negative schedules of Personality were measured. The findings of this research revealed that participants with higher levels of negative affect in their personality will be having higher levels of Internet Gaming Disorder. The temperament of the participants served as a mediator in this research and a significant amount of negative affect on personality was seen (Zemestani et al., 2021).

The connection between video gaming and psychological functioning was explored in the research. This research measured the personalities of gamers and their association with psychological factors. The findings of the research revealed a negative correlation between internet gaming and healthy psychological functioning. These were regarding the affectivity, coping strategy, and self-esteem of the gamers (Heiden et al., 2022).

The personality traits of gamers have a relationship with the problematic gaming behavior of PC gamers. The research discovers that certain psycho-biological models are developed to address the core characteristics of excessive internet usage. Early childhood experiences and personality traits contribute to early behavioral addiction. When multiplayer Online Role Playing Game players and First Person Shooter gamers' personalities were analyzed, it was seen that they had developed symptoms of depression, neuroticism, low levels of conscientiousness, and the time spent on game playing (Dieris-Hirche et al., 2020).

Pathological gaming has been linked to excessive gaming binges and aggressive behavior, but it remains unclear whether such behavior leads to increasingly excessive gaming habits and physical aggression. In this two-wave panel research, the researchers aimed to examine the relationship between pathological gaming and excessive gaming habits, and the reason why pathological gaming may cause an increase in physical aggression. The research involved 851 Dutch adolescents, of which 540 played games, and the sample was stratified by sex with 49% of participants being female. The results revealed that higher levels of pathological gaming predicted an increase in time spent playing games 6 months later. Interestingly, the increase in time spent playing games was specifically associated with violent games, rather than gaming in general. Furthermore, higher levels of pathological gaming predicted an increase in physical aggression among boys, regardless of violent content. This finding is significant, as adolescent boys are typically the heaviest players of violent games and are most susceptible to pathological involvement (Lemmens & Valkenburg, 2011).

The research's findings are consistent with previous research, which suggests that pathological gaming may lead to excessive gaming habits and increased physical aggression, particularly among adolescent boys. The research contributes to the

growing body of literature on the potential negative consequences of pathological gaming, and highlights the importance of continued research in this area. Given the potential negative effects of excessive gaming and physical aggression, it is crucial to develop effective interventions to address pathological gaming and related behaviors, particularly among vulnerable groups such as adolescent boys. Similar to therapies for mood and anxiety disorders, combined treatment seems to be the most successful. On the other side, there is less research available regarding the treatment and prevention of addictive internet behaviors such social media use, pornography, and binge-watching. However, current research emphasizes the distinctions between different media types and how each use of each one may be intrinsically more or less problematic. The validity of screening tools for IGD has been explored in multiple studies, with the Internet Gaming Disorder Scale (IGDS) being the most widely used. Risk factors include male gender, higher impulsivity, lower self-esteem, poor academic performance, and poor mental health. Protective factors include parental involvement, social support, and offline activities. Pharmacological treatments have shown mixed results, with no specific medication approved for IGD. Cognitive-behavioral therapy (CBT) and mindfulness-based interventions have shown some promise in treating IGD, especially when combined with family interventions. The focus of the future research can be on the long-term effects of IGD and the differences between types of video games. Furthermore, research should consider whether IGD is an independent disorder or a manifestation of underlying mental health issues. Finally, interventions should be tailored to the individual and their specific online behaviors rather than having a similar approach for all kinds of research (El Sehamy & Farahmand, 2023).

Case research research was also conducted for researching the personality types of gamers that were developing Internet Gaming Disorder. For few gamers, gaming is a purposeful and meaningful activity but for many, it leads towards the development of Internet Gaming Disorder. Personality traits have been progressively studied to find out the types of personalities that lead to problematic gaming habits in individuals. Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines were used in this research. Research that was published in recent years, empirical studies, research in Turkish and English, and published peer-reviewed articles were used. It was found out that a certain personality type has a certain genre and game preferences and certain personality types tend to develop Internet Gaming Disorders (Griffiths, 2019).

With the personality traits, some factors were discovered that served as a mediator to develop Internet Gaming Disorder. According to this research, the mediating factor was family acceptance. Family factors and personality traits of gamers were studied separately and then the mediating factors were observed. Results revealed that the occurrence of Internet Gaming Disorder was associated with parental rejection when there was an influence of core self-evaluation (Throuvala et al., 2019). This research favors the current research with regards to the personality schedules but also discusses mediating and moderating factors.

The Cognitive Psychopathology of Internet Gaming Disorder was seen in Adolescents, it was observed that adolescents were the at-risk population to develop Internet Gaming Disorder. The persistent and excessive involvement of adolescents' is rooted in a set of maladaptive beliefs that adolescents have. They rely on gaming because they believe in tangible and game rewards, inflexible rules about gaming behavior, meeting their self-esteem needs by overly relying on games, and by gaining social acceptance through gaming. Findings also indicated that adolescents with Internet Gaming Disorder had more established maladaptive beliefs than adolescents without the disorder. The results also reveal that there is a trail of problematic gaming thoughts which can be controlled by therapeutic interventions with their cognitive processes (King & Delfabbro, 2016).

Similarly, another research was conducted to understand the style of life of problematic gamer. Their purpose and meaning of lives and how it is influenced by video gaming was also explored. When the research was conducted, it was found out that gaming influences the lives of gamers both positively and negatively. It is a meaningful activity and problem gamers also find it purposeful. They use video games as the coping mechanism for the negative experiences that they go through. Also, the external influences boost or slow down the amount of time invested in gaming (Shi et al., 2019).

Gaming and E-sports are very popular in China. Its prevalence was studied in adolescents. Personality traits through the big five personality

scale were measured and one aspect of Internet Gaming Disorder that is Gaming Dependency was studied through the gaming dependency scale. Adolescents with personality traits such as high neuroticism and low conscientiousness were at risk to develop Internet Gaming Disorder. Hence it was advised to look out for such factors as a pattern of prevalence of the disorder (Liao et al., 2020).

When the risk factors were being researched, a compensatory model was also developed to understand the role of dysfunctional personality traits causing problematic gaming behavior in individuals. Narcissistic personality was seen to play a role in the relationship between emotional dysregulation, escapism motivation to play, and problematic gaming. Findings revealed that factors or personality traits like emotional dysregulation, escapism motivation, and problematic gaming were boosted when there was a presence of vulnerable narcissism in personality (Di Blasi et al., 2020). The research proves our research purpose that personality traits are directly related to problematic gaming. However, the current research will measure a broader perspective of personality.

Effects of online gaming on human behavior has been a topic of debate in recent years. While there are several risk factors associated with excessive gaming, it is also essential to explore the positive effects of gaming. Research has shown that individuals engage in gaming primarily for entertainment purposes, and as a result, they report reduced levels of aggression and distress (Ferguson & Wang, 1970).

Moreover, internet gaming has been found to have a positive impact on education and learning. Games designed for educational purposes have been shown to improve academic performance and enhance critical thinking and problem-solving skills Internet Gaming Disorder.

Figure 1.1
Theoretical Framework
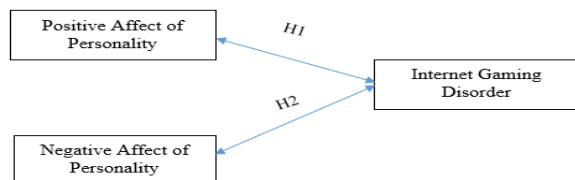
(Wouters et al., 2013). Additionally, some researchers suggest that internet gaming can enhance creativity and imagination (Johnson, 2015). While there are concerns about the negative effects of internet gaming, it is crucial to recognize the positive effects that gaming can have on human behavior. Research has shown that gaming can lead to positive cognitive, social, and therapeutic outcomes. Furthermore, internet gaming has the potential to improve education and learning outcomes. It is, therefore, important to consider the positive effects of gaming when exploring its impact on human behavior.

3. THEORETICAL FRAMEWORK

David Watson, one of the authors of PANAS gave the Trait Dimension Model relating DSM-V in which the integration of positive and psychopathic personality traits was discussed. The theory expressed that the negative affectivity strongly correlated with neuroticism, antagonism and disinhibition. However, the positive affectivity strongly correlated with Extraversion, Agreeableness, positive Temperament, and Conscientiousness. The current studies highlight the same factors under this theory and explores the trait correlation with Internet Gaming Disorder. (Watson et al., 2013)

Internet Addiction was also studied in a theory by Griffiths that Internet Gaming Disorder. The theory signifies that Internet Addiction is not the matter of hours of the gameplay but also the context and personalities of the players (Griffiths, 2018).

This research focuses on the personality traits associated with positive and negative affectivity in individuals. And how certain personality traits and factors tend to develop psychological dysfunction and in the current research

3.1 Hypotheses

H1: There would be a significant positive relationship between the negative affect schedule of personality and a significantly weak relationship between the positive affect schedule of personality and Internet Gaming Disorder.

H2: There would be a significant correlation between the gender of individuals and Internet Gaming Disorder.

The current research explored the positive and negative personality schedules of people and their relationship with Internet Gaming Disorder. The variables were explored based on the trait theory of personality, addiction theory, affect theory, and the newly added DSM-VTR Internet Gaming Disorder.

METHODOLOGY
4.1 Research Design
This research adopted the correlational survey method. The research design was used in the research because the relationship between the variables that are positive and negative affectivity of personality and Internet Gaming Disorder was studied and explored the reason of their co-occurrence.

4.2 Participants
The participants for this research were gamers online or offline. The data was collected through a purposive sampling method. The calculated sample size was 200 maximum, for better generalizability the data of 304 participants was collected. 30 forms were found outside the inclusion criteria hence discarded. The data of 274 forms was proceeded with analysis.

4.2.1 Sample Size Justification
The total number of gamers that are currently reported in Pakistan is 100,000 and the data of 0.2% population (Martínez-Mesa et al., 2014) according to the sample percentage calculator will be collected (Pakistan PC Gamers, 2021). This makes the sample size of maximum 200 and a minimum 150 gamers.

4.2.2 Inclusion and Exclusion Criteria
- Both genders were included
- Gamers playing games for at least a year were included
- Ages ranging from 18 onwards were included
- Gamers belonging to any gaming academy or not a part of gaming academy were   included
- All gamers without the exception of device were included
- Gamers with any diagnosed psychological disorder were excluded
- Gamers playing games for less than 1 year (IGD Criteria) were excluded.

4.3 Measures
A consent form was presented to all the participants. The consent form stated that the participation in the research would be voluntary and they may withdraw at any time. Participation in this research would be kept confidential. The name of the academies and participant identity would not be disclosed in the publication of data. The data would only be shared with the research supervisor ensuring the confidentiality of responses for analysis. No personal information would be disclosed. There were no potential risks involved in the participation of this survey-based research.

A demographic form followed the consent form and it contained the demographic details of the participants. Lastly, PANAS and IGDS9-SF scales were attached in the survey form.

4.3.1 Internet Gaming Disorder Scale (IGDS9-SF)
This scale was used to measure the features of Internet Gaming Disorder in the participants. This is a nine-item scale and measures the nine-point criterion of Internet Gaming Disorder. This scale was developed by Pontes and Griffith (2015). The questions in the scale target the gaming activity of individuals in the last 12 months (1 year). This is a 5-point Likert scale which ranges from Never, Rarely, Sometimes, Often, and Very Often. The scale has been tested to be valid and reliable and has high concurrent and cross validity (Pontes & Griffiths, 2015). The scale holds internal consistency of 0.90 and concurrent validity of time spent playing online games of r=0.62 (Wu, et.al, 2017)

4.3.2 Positive and Negative Affectivity Scale (PANAS)
This scale was used to measure Positive and Negative Affectivity. It is a self-measure scale. This scale is valid for 18 years of age and above. It is a 20 item scale that has item 1, 3, 5, 9, 10, 12, 14, 16, 17, & 19 measuring the positive affect and item 2, 4, 6, 7, 8, 11, 13, 15, 18, & 20 measuring the negative affect. This scale was developed by Watson, Clark, and Tellengen in the year 1988. This is also a five-point scale ranging from Very slightly, or not at all, A little Moderately, Quite a bit, and Extremely. The scale also has validity with the Correlation of the PANAS to HSCL = .74 for negative affect and -.19 for positive affect. Correlation of PANAS to BDI = .65 for negative affect and -.29 for positive affect.

4.4 Procedure

The design of the current research was survey-based. Hence, the data was collected in the form of survey questionnaires. The researcher visited several E-sports academies after receiving permission from the university research department and the academies to administer questionnaires to the participants. The researcher also gave out questionnaires to gamers, who do not belong to any academy, in person. The questionnaire was taken back after they were filled by the participants and they all were thanked for their cooperation.

4.5 Ethical Consideration

According to the American Psychological Association's Ethical Principles of Psychologists and Code of Conduct, which stipulates that research should only be conducted within the researchers' areas of expertise, it was ensured that the ethical principles were seriously taken into account while carrying out the experiment. The research was based on recognized scientific and expert knowledge in the field. The participants were protected from injury by reasonable measures. Human rights were not broken either knowingly or unknowingly. Participants in the research were fully told about what was going on, and they had the option to withdraw at any time during the experiment. The participants were given the assurance that their personal information would be kept private; anonymous data would be used; and pertinent confidentiality limitations would also be highlighted. There was no misrepresentation; the participants were fully informed of the process. Before and after the experiment, the participants received a briefing about the purpose of the research, and all of their questions were answered. All of the sources are referenced, and no data from another person's work has been used. Only the information and work that the researchers have personally acquired and contributed to are given authorship credits.

RESULTS

Table 5.1
Demographic Profile of Respondents

Demographic Variables		*f*	%
Gender	Male	187	68.2%
	Female	85	31.0%
Age	18-28 Years	228	83.2%
	29-39 Years	42	15.3%
	40 and above	3	1.1%
Number of Hours Spent on Gaming	Less than 8 Hours	232	84.7%
	8-10 Hours	24	8.8%
	10 and above	17	6.2%

(*N*=274)

Table 5.1 depicts the demographic analysis of the respondents for the current research. It was observed that there was a greater number of males and a smaller number of females in the gaming population. Similarly, the highest ratio of gamers is in the 18-28-year-old population and the least ratio was in the 40-above population. The descriptives show that most gamers spend less than 8 hours on internet gaming.

Table 5.2
Reliability Analysis of the Instruments

Measure	No. of items	α
PANAS	20	.769
IGD	9	.815

(*N*=274)

The Cronbach alpha reliability for the Positive and Negative Affectivity Scale is 0.769 and for Internet Gaming Disorder Scale it is 0.815. Both are significant values, hence the instruments used in the research are reliable and have inter-rater and consistent reliabilities.

Table 5.3

Correlation between Positive Affect Schedule (PAS) and Internet Gaming Disorder (IGD)

	IGD
PANAS (PAS)	.330**
Sig	.000*

*. $p < .05$

The table above indicates that there is a weak correlation between Positive Affectivity Schedule and Internet Gaming Disorder in gamers which means that a person with more positive affectivity schedule will have less tendency to develop the features of Internet Gaming disorder.

Table 5.4

Correlation between Negative Affect Schedule (NAS) and Internet Gaming Disorder (IGD)

	IGD
PANAS (NAS)	.569**
Sig	.000*

*. $p < .05$

Table 5.4 is showing a moderate to good relationship between PAS and IGD. (*N*=274)

The table above indicates that there is a moderately significant correlation between Negative Affectivity Schedule and Internet Gaming Disorder in gamers which means that a person with a more negative affectivity schedule will have more tendency to develop the features of Internet Gaming disorder.

Table 5.5

Independent Samples t-test for Gender Differences on Internet Gaming Disorder Tendencies

Measure	Group	n	Mean	SD	t	df	p
Total IGD	Male	187	22.14	7.015	3.193	270	.436
	Female	85	19.29	6.337			

Note: IGDS: Internet Gaming Disorder Scale, n: 272, SD:0.4644, t: t-3.193, df: 270, p: 0.436

Table 5.5 depicts gender differences with Internet Gaming Disorder tendencies significant differences were not found (t= 3.193, sig= .436).

The above table reflects that there is no gender difference effect on Internet Gaming Disorder tendencies as the sig value is greater than .05.

Table 5.6

One-way ANOVA for Age Factors of Internet Gaming Disorder

Measure	Group	n	Mean	SD	f	df	p
Total	18-28	228	21.41	6.809	.486	2	.615
IGD	29-39	42	20.31	7.643		270	
	40 and above	3	22.33	4.042			

Note: IGDS: Internet Gaming Disorder Scale (IGDS9-SF), n: 272, SD:0.4644, t: t-3.193, df: 270, p: 0.615

Table 5.6 depicts age factor differences with Internet Gaming Disorder tendencies, significant differences were not found (t= 0.486, sig= .615).

The above table reflects that there is no age factor effect on Internet Gaming Disorder tendencies as the sig value is greater than .05.

5.7 Summary

The study encompassed 274 participants, predominantly males (68.2%) and mainly falling within the 18-28 age range. A significant majority (84.7%) reported playing games for less than 8 hours. Reliability analysis indicated strong consistency for both the PANAS (α = 0.769) and IGD (α = 0.815) scales. Positive affectivity demonstrated a weak negative correlation with Internet Gaming Disorder (IGD), suggesting a lower tendency for IGD. Conversely, negative affectivity exhibited a moderate positive correlation with IGD. Gender differences did not significantly impact IGD tendencies, and age also showed no substantial effect. In summary, the study provided valuable insights into participant demographics, scale reliability, and the correlation between affectivity and IGD, indicating that gender and age were not major influencing factors in this context.

DISCUSSION

This research represents a pioneering attempt that examines the distinctive characteristics of internet gaming usage and its association with personality traits across various gaming devices, an area that has received limited prior research attention. The research's primary findings contribute significantly to our understanding of this domain.

A significant finding of this research is the identified relationship between personality traits, specifically Positive Affectivity Schedules (PAS), and the propensity for developing Internet Gaming Disorder (IGD). The research reveals that individuals who exhibit higher levels of Positive Affectivity (PA) in their personalities are less prone to the development of IGD compared to those with higher levels of Negative Affectivity (NA) as they are more prone to the development of IGD. This suggests that individuals with an inclination for positive emotional experiences may be less drawn towards engaging in excessive and problematic gaming behaviors, thereby decreasing their vulnerability to IGD. Similarly, individuals with an inclination for negative emotional experiences may be more drawn towards engaging in healthy gaming and increasing their vulnerability to IGD (Lewis & Weirs, 2012).

The current research investigates the relationship between a gamer's personality and the formation of Internet Gaming Disorder. Internet Gaming Disorder is characterized by obsessive and excessive online gaming behavior, which can substantially impair or bother a person. To create effective therapies, the personality traits that contribute to the genesis of this illness must be recognized. Prior research has linked personality traits such as neuroticism and impulsivity to an increased likelihood of developing Internet Gaming Disorder (King et al., 2013).

This research represents a seminal contribution to the field by examining the characteristics of internet gaming usage and its association with personality traits across different gaming devices. The findings emphasize the role of Positive Affectivity, gender dynamics, and age as crucial factors shaping gaming behaviors and their potential impact on individual well-being.

Personality schedules, both positive and negative, were measured in a research and according to the findings of this research, individuals who have higher degrees of negative affect in their personality would have higher levels of Internet Gaming Disorder. In this research, the participants' temperament worked as a mediator, and a large quantity of negative influence on personality was observed (Zemestani et al., 2021).

The research highlights the influence of age on gaming behavior. Recent studies have provided evidence indicating that individuals who start using the Internet at younger ages are more likely to develop general Internet addiction. This finding suggests that early initiation of Internet use may increase the risk of problematic Internet behaviors. Previous research has highlighted the presence of distinctive cognitive processes in online gaming, where an individual's overall sense of self-worth becomes contingent upon the self-esteem derived from the gaming environment. This implies that individuals may heavily rely on their gaming experiences to shape their self-perception and self-esteem. In light of these observations, the research aims to investigate the mediating role of self-esteem variables in the relationship between the age of initiation and symptoms of Internet Gaming Disorder (IGD). Given the unique cognitive processes observed in online gaming, it is plausible to suggest that self-esteem may play a significant mediating role in the relationship between the age of initiation and symptoms of IGD (Charlotte et.al, 2017).

The majority of respondents in the current research fall within the age range of 18-28 years, indicating a higher prevalence of gaming activities among this age group compared to older cohorts, such as the elderly or individuals in late adulthood. This finding underscores the importance of incorporating age-related factors into the understanding of gaming behaviors and designing tailored interventions.

Research uncovered an interesting relationship between basic psychological needs, Internet Gaming Disorder (IGD), life satisfaction, and negative affect. It was discovered that the association between basic psychological needs and IGD was influenced by an intermediary factor, namely life satisfaction. In other words, individuals who had unmet psychological needs were more likely to experience lower life satisfaction, which, in turn, increased their vulnerability to developing IGD (Wu et.al, 2018). Research revealed that the negative affectivity schedule can play a mediating role in an individual's life satisfaction, psychological needs, and depression (Celik et.al, 2022).

The findings from recent empirical studies strongly suggest that Internet Gaming Disorder (IGD) is associated with a broad range of personality traits, domains, and disorders. It has been observed that certain personality factors such as high levels of neuroticism, impulsivity, and aggressiveness consistently emerge as significant predictors of IGD across multiple studies. However, it is important to note that the overall results of a systematic review indicate that the development and maintenance of IGD may involve different personality traits, often in combination with one another while traits like neuroticism, impulsivity, and aggressiveness are frequently linked to IGD, it is not solely these traits that determine its presence. Rather, the acquisition, development, and continuation of IGD appear to involve a more complex interplay of various personality traits. This suggests that different individuals may exhibit different patterns of personality traits that contribute to their susceptibility to IGD (Alessia et.al, 2017).

Recent research has also examined the relationship between Internet Gaming Disorder (IGD) and Gambling Disorder, with a specific focus on the Spanish normative sample. In this research conducted by (Núria, Mallorquí, et al. 2017), the comparison between the two disorders and their correlation with personality traits was investigated.

The findings of this research revealed that participants who exhibited a high negative affectivity schedule were more prone to developing both Gambling Disorder and Internet Gaming Disorder. This suggests that individuals with a tendency towards experiencing negative emotions are at an increased risk for developing problematic behaviors in both gambling and gaming contexts.

The current research also indicates that participants who had more positive affectivity schedules will be less likely to develop Internet Gaming Disorder and the participants having more negative affectivity schedules in their personalities are more likely to develop Internet Gaming Disorder. By examining the intricate relationship between personality factors and IGD, researchers can identify potential risk factors and develop targeted interventions or prevention strategies to address the disorder effectively. While certain personality traits consistently show a connection with IGD, it is the combined effect of various traits that likely plays a crucial role in its development and perpetuation.

6.1 Conclusion

The research uncovered a significant predictive link between positive and negative affectivity schedules of personality and the susceptibility to Internet Gaming Disorder (IGD). It reveals that individuals with higher positive traits are less likely to develop IGD, while those with elevated negative traits are more vulnerable to the disorder. The study did not find substantial effects of age, gender, or device on IGD likelihood, suggesting these demographic factors have limited impact within this research scope. The findings underscore the importance of considering individual affectivity differences in understanding IGD risk factors. While providing valuable insights, future research could explore underlying mechanisms and potential limitations. In conclusion, this research advances our understanding of the interplay between affectivity schedules, personality traits, and IGD, offering avenues for targeted interventions and preventive strategies.

6.2 Implications

This research has several implications in the field as the topic and Internet Gaming Disorder is the least but the most popular condition these days. It helped predict areas where individuals of several personality types can excel. It opened doors for organizations and career researchers to introduce it as a way for individuals in which they can pursue gaming as a career. The precautions, trends, and development of Internet Gaming Disorder will be prominent. The individuals getting Internet Gaming Disorder just for leisure were highlighted. The research helped create general awareness about Internet Gaming Disorder and personality. This research opened more areas to research for researchers.

6.3 Limitations and Recommendations

This research has certain limitations that demand consideration and suggest opportunities for future research. Firstly, it is important to acknowledge that the research does not claim to provide a definitive diagnosis of Internet Gaming Disorder (IGD) in individuals. Instead, it serves as a screening tool to identify tendencies toward IGD.

Secondly, the research primarily focuses on exploring the correlation between specific sets of personality traits and IGD, rather than establishing causation. It does not account for potential mediating

factors that may influence the relationship between positive and negative personality schedules and the development of IGD..

The research does not differentiate between specific genres of internet gaming such as first-person shooter, role play games, third person shooting games, drama and story oriented games. While the current research explores the co-occurrence of personality traits and IGD regardless of these factors, there is a need for more sample-specific studies that delve into the effects of different gaming genres on IGD.

Another limitation of the research is its exclusive focus on positive and negative personality schedules, neglecting other facets and dimensions of personality. Further investigations could encompass a broader range of personality factors to obtain a more comprehensive understanding of their association with IGD.

Moreover, the development of a comprehensive scale for assessing IGD could be an area of future research. Such scales could incorporate questions that capture not only the presence of IGD symptoms but also the prevalence factors that may contribute to the development and maintenance of the disorder.

While this research provides valuable insights into the correlation between positive and negative personality schedules and IGD, it is important to recognize its limitations. Future research should address these limitations by refining diagnostic criteria, incorporating mediating factors, considering device and genre specificity, exploring additional dimensions of personality, developing comprehensive assessment scales, and accounting for potential confounding variables. By addressing these areas, researchers can advance our understanding of IGD and its underlying mechanisms, leading to improved prevention, intervention, and treatment strategies for individuals affected by this disorder.

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